



## The Big Lock-In

Comcast and its brethren already dominate high-speed Internet access. The clock is ticking to stop them from dominating online video.



What if all of the devices in your life had a common interface, controlled by a single company, that picked what video content you could easily search and access online? What if that single company had its own economic reasons to support some “channels” and hide others?

Welcome to the world of Xfinity, Comcast's brand name for its services. You've seen the advertising. Now here's the big idea: If Comcast has its

way, Xfinity will be Americans' window on the world. Basically, our *only* window.

First, some background. In 1996, Congress passed a law directing the FCC to ensure a competitive retail marketplace for consumer devices used to access cable and satellite pay TV services. That law, Section 629 of the Telecommunications Act, hasn't brought about the changes Congress wanted. Today, you can choose among hundreds of wireless handsets and innumerable laptops and tablets. But when it comes to the vital category of set-top boxes—that ugly metal thing that plugs into your TV and talks to the wire coming into your house—you have very little choice.

Five years ago, the Obama administration's National Broadband Plan pointed out that Motorola and Cisco controlled more than 90% of the set-top box market and strongly recommended that the FCC finally implement Section 629. Efforts along these lines then died a quiet death inside the agency. At the end of 2014, Congress passed a law that wipes out the FCC's old rules on this subject as of September 15, 2015.

So now there's a tick-tock to this story: it's time for the Commission to get something workable in place.

Telecommunications network providers always try to glue devices to their networks so as to leverage their control over airwaves and wires into additional markets. The AT&T of the 20th century, the monopoly phone company, was famous for requiring that it be the source of all consumer equipment attached to its lines. If it hadn't been for a persistent FCC and the *Carterfone* decision, the dial-up modem would have been locked to AT&T's network and the commercial Internet would not have taken off.

The FCC has for years been nudging the pay TV industry to come up with a common adapter or gateway that would allow all consumer electronics devices to access any set of video services sold in the US once a user has subscribed. (No subscription, no decryption of proprietary video.) Nowadays, such a gateway has to allow access to “over-the-top” (online) Internet video and a host of interactive services like program guides and DVRs as well: almost no one ever switches their “smart TV” over to its Internet access mode, so unless devices support navigation across all forms of video content, over-the-top choices will simply disappear from view. So far, progress has been negligible.

*The industry isn't rushing to fix this problem; it's not in their interest to do so.*

Instead, Comcast and its cable brethren have come up with a software-driven variation on the same bright idea that AT&T had decades ago. Comcast is trying to make sure that when Americans are searching for video content using their TV or smartphone navigation menus they're using the Xfinity interface.

As TV viewing shifts from traditional TV sets to mobile devices and tablets, Comcast's cloud-based Xfinity platform will be right there. Eventually, we'll all have box-free set-top boxes: the network itself will include Xfinity's navigation menus, instruct any device in the home how to download DVR recordings and stream live TV, and watch carefully for video viewing patterns—so as to better place ads.

To get there, Comcast is licensing Xfinity for free to other cable distributors, set-top box makers, and computer-chip manufacturers, ensuring that its platform is widely adopted. Then, when it's everywhere, it will be controlled remotely by its masters. Two years ago, Matt Zelesko, Senior Vice President at Time Warner Cable, said this free licensing would “drive collaboration across the [cable] industry.”

The payoff for Comcast and its collaborators? They'll be able to ensure that their own video on demand services are easy to find but users can't search simultaneously across Vudu, Netflix, or YouTube. They'll control video navigation and, thus, the user experience—and the profits that flow from it. Program guides, DVR recordings, and “pretty much everything but the volume control” on Xfinity-obedient devices will be governed from the cloud, according to Rob Rockell, Vice President of Engineering for Comcast. This is a very big deal.

Consumers aren't the only interested parties that will feel the squeeze of Xfinity. Last April, Comcast bought FreeWheel Media, a TV advertising company that “personalizes and inserts online video ads for media clients,” according to Reuters. Because FreeWheel's clients include media conglomerates 21st Century Fox, Disney, Time Warner, and Viacom, Comcast (which owns its own competing media conglomerate, NBCU) now knows everything about who watches what online; powerful ammunition in negotiating with programmers.

And it is not a coincidence that Time Warner Cable stopped negotiating with Apple TV when Comcast kicked off its merger efforts: TWC would have allowed its users to replace their set top boxes with an Apple TV. Comcast doesn't offer a Roku app, doesn't support Chromecast well, and generally isn't interested in the idea that subscribers might migrate away from pay TV packages to over the top alternatives traveling over Comcast's wires. As Comcast's Executive Vice President David Cohen said in 2011, "We're not very good partners. We like to run things."

Here's where the government can help. Net neutrality aims at providing a level playing field for bits traveling across networks, but if the devices Americans use to access video are politely following Comcast's (or another pay TV distributor's) directions it won't matter that the networks they're attached to are neutral. The FCC understands this, and has recently launched a fast-track federal advisory effort (acronym: DSTAC, standing for Downloadable Security Technology Advisory Committee).

This group is slated to propose by September a way for any consumer device to download a gateway that will provide secure access to any pay TV content—over the top or otherwise. Then other companies can compete to provide a host of interfaces blending pay TV and over the top content across a host of devices. The committee meets for the first time on February 17, and will have to report by September—when, otherwise, the FCC's set top box rules will vanish.

If this works, we'll have a variety of navigation options, a wildly competitive market for devices, and a thriving over-the-top video ecosystem. If it doesn't work? Xfinity will truly be everywhere. Think big, as the Comcast tagline says.

Tick-tock, tick tock.



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